



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/815,300	03/31/2004	Lance T. Funston	(192654)	7296
7590 06/08/2010 GREGORY J. LAVORGNA DRINKER BIDDLE & REATH LLP One Logan Square 18th & Cherry Streets Philadelphia, PA 19103-6996				
EXAMINER				
MARANDI, JAMES R				
ART UNIT		PAPER NUMBER		
2421				
MAIL DATE		DELIVERY MODE		
06/08/2010		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/815,300

Applicant(s)

FUNSTON, LANCE T.

Examiner

JAMES R. MARANDI

Art Unit

2421

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 January 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 9-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 9-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/GS/US)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. This action is in response to applicant's amendment filed on 1/21/2010. Claims 1-7, and 9-11 are presently pending. Claim 8 has been canceled.

Response to Arguments

2. Applicant's arguments filed on 1/21/2010, with regards to claims 1-7, and 9-11 have been fully considered but are moot in view of the new ground(s) of rejection.

Although a new ground of rejection has been used to address additional limitations that have been added to independent claims 1, and 3, a response is considered necessary for several of applicant's arguments.

- 2.1. Applicant has amended claims 1 and 3 to recite **"an electronic database"**, to overcome rejection of claims 1-7 and 9-11 under 35 U.S.C § 101. The instant claims do not transform underlying subject matter as described below. Although the claims recite an electronic database that inherently require a machine, the

steps of simply storing information are insignificant extra solution activities because they do not impose a meaningful limit on the scope of the claims. Therefore, the claims do not qualify as statutory processes. For example, the steps recited in claim 1 define a manual process of selecting several values from the electronic database. Though the claim(s) recite and "electronic database", use of such machine is still a manual step in a series of other manual steps. A database lookup may be a manual look up of a book containing data or a manual lookup of an electronic database (e.g. on a computer); recording said numbers, and then manually and/or mentally performing several operations, such as determining a demo universe, calculating a demo universe factor, calculating conformance factor, etc., without involvement of a machine.

2.2. Applicant contends that claims 1-7 and 9-11 are believed to recite sufficient "transformation" to meet the requirements of Section 101 and the In re Bilski decision". Page 8,9, and 10 of Remarks

Examiner disagrees. The requirement for transformation must meet all the factors below:

- (1) the data must represent physical objects
- (2) the data must be transformed into a different state or thing; and
- (3) the method must be limited to practical application of a fundamental principle to transform specific data.

First, the data in the claims do not represent physical objects such as body parts or bones as in *Re Bilski* in reference to *Abele*. Second, there is no transformation of the data into a different state or thing. The method started with commercials, measurement data and data about people and ended with the same data. Since the claims fail the first and/or the second requirement, the claims do not meet the transformation test and are therefore non-statutory.

2.3. Applicant argues that *"..., as to the alleged admitted prior art, the Applicant respectfully re-iterates its traversal of the Examiner's characterization of the statements made in paragraphs [0025] and [0028] of the "Detailed Description of the Invention" as "admitted prior art." While these paragraphs acknowledge the availability of electronic affidavits and Nielsen's CMIT database, it is respectfully pointed out that the manner in which embodiments of the invention use these electronic affidavits and CMIT databases -in combination with the other operations recited in the independent claims -is novel and unique."* Page 11 of Remarks, 3rd Paragraph

Examiner points out that in addressing specific limitations of several claims relating to the availability of electronic affidavits and Nielsen's CMIT database. Examiner has relied on those admissions by applicant to reject any limitations

that may have been perceived to be applicant's own invention, such as limitations of claims 2,3, 5, and 9 (where stated **obtaining, in electronic format, details on the airing of the local spots** -electronic affidavits-, and **obtaining national viewing data for the network** -CMIT-). Paragraphs [25] and [28] are admissions of the state of the art by the applicant, and are used to only meet limitations recited in claim.

2.4. Applicant argues that ***"Regarding independent claim 2, this claim recites in part determining household impression and demo impression for the local spots based on the national viewing data" and as pointed out in paragraphs [0011]-[0012] of the Application, the prior art has used "daypart" averages which are broadly defined period of time such as "prime-time"- and not national viewing data "in increments of less than one hour" as recited in claim 2.***" Page 12 of Remarks, 4th paragraph through Page 13 of Remarks, 1st paragraph

Examiner disagrees with applicant's statement that ***"the prior art has used "daypart" averages which are broadly defined period of time such as "prime-time"'***". The "daypart" is any time slot of which the "prime-time" is a special time slot which is popularized by the most available potential viewers. Furthermore, Nielsen's CMIT is provided in quarter hour increments which is less than one hour!

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3.1. Claim(s) 1-7 and 9-11 are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. While the claims recite a series of steps or acts to be performed, a statutory "process" under 35 U.S.C. 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing. See page 10 of *In Re Bilski* 88 USPQ2d 1385. The instant claims are neither positively tied to a particular machine that accomplishes the claimed method steps nor transform underlying subject matter, and therefore do not qualify as a statutory process.

The instant claims do not transform underlying subject matter as described below. Although the claims recite an electronic database that inherently require a machine, the steps of simply storing information are insignificant extra solution activities because they do not impose a meaningful limit on the scope of the claims. Therefore, the claims do not qualify as statutory processes. For

example, the steps recited in claim 1 define a manual process of selecting several values from the electronic database. Though the claim(s) recite and “electronic database”, use of such machine is still a manual step in a series of other manual steps. A database lookup may be a manual look up of a book containing data or a manual lookup of an electronic database (e.g. on a computer); recording said numbers, and then manually and/or mentally performing several operations, such as determining a demo universe, calculating a demo universe factor, calculating conformance factor, etc., without involvement of a machine.

The requirement for transformation must meet all the factors below:

- (1) the data must represent physical objects
- (2) the data must be transformed into a different state or thing; and
- (3) the method must be limited to practical application of a fundamental principle to transform specific data.

First, the data in the claims do not represent physical objects such as body parts or bones as in *Re Bilski* in reference to *Abele*. Second, there is no transformation of the data into a different state or thing. The method started with commercials, measurement data and data about people and ended with the same data. Since the claims fail the first and/or the second requirement, the claims do not meet the transformation test and are therefore non-statutory.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1 and 3-11 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

- 5.1. Claims 1 and 3 have been amended to recite "electronic database". Applicant has offered ¶ [26] of the disclosure as support for this amendment. ¶ [26] relates to the affidavits offered by cable systems which are provided electronically and/or in paper form for conversion by OCR technologies. However, there are no indications/ disclosure as any processing of such data beyond lookup of data. Specifically, as it relates to ***"assigning audience values for one or more local spots by determining a household universe for the data comprising the total number of households that subscribe to the network and storing the household universe in the electronic database"***, applicant has not disclosed

the storing/ recording of such data in an electronic database. Furthermore, referring to applicant's Fig.1, it appears that beyond the step of acquiring the affidavit, there are no interactions with any electronic database.

5.2. Claims 4-11 depend on claim 3 and are rejected the same.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 3-7 and 9-11 rejected under 35 U.S.C. 103 (a) as being unpatentable over applicant's own disclosures (background of the invention), in view of Glen Szczypka et al. in "The Adaptation and Use of Nielsen Media Research Commercial Rating Data" study published in 2003 (hereinafter "Szczypka").

7.1. Regarding claim 1, applicant's admitted prior art discloses: **A method of calculating performance related to a local delivery of a local television commercial spot advertiser by aggregating local spots broadcast on a network into national equivalent units (§§ [9]-[11]) using a database comprising national measurement data including at least the total number of households that subscribe to the network and the total number of persons within a specific sex-age demographic group that subscribe to the network (Nielsen's database, such as NTI as admitted in § [11]), and the method comprising the steps of:**

assigning audience values for one or more local spots by determining a household universe for the data comprising the total number of households that subscribe to the network (definition of Nielsen's Household Universe, as admitted in § [11], lines 1-3)

determining a demo universe for the network from the data comprising the total number of persons within a specific sex-age demographic group that subscribe to the network (what applicant calls a "demo universe", is referred to as Target Points or Target Rating Points -TRP- which specify a targeted population such as particular demographics, age group, etc. This distinction/ definition is evidenced by Szczypka, page 8, Ratings/ GRPs/ TRPs Section, an example of which is shown in Table 1, pages 14-15);

calculating a demo universe factor by dividing the demo universe by the household universe (as calculated by Nielsen's TRP, this is a number which shows what percentage of the particular interest group is watching a particular program);

retrieving a specific household universe for at least that part of the network corresponding to the location in which a spot was broadcast from and storing the specific household universe in a record corresponding to a specific local spot for later retrieval (this is the population of the local area/zone under consideration, for example, master zone as admitted in ¶ [11], 6th line);

calculating a universe conformance factor by dividing the household zone universe by the household network universe (this is the ratio of the households in the local area to the total network household population. In the next step examiner presents how this limitation is met);

calculating household delivery (household delivery is the number of impressions) **for a specific spot by multiplying the network household delivery and the universe conformance factor and storing the household delivery data** (This limitation is the same as the prior art process admitted in ¶ [11]. The applicant is taking the network household impression and adjusting it based on the ratio of the population of the household universe in the zone to the household universe in the network. The prior art takes the population of the zone and multiplies it by Nielsen's rating which indicates the percentage of the

population watching the program. Therefore, applicant's previous step, along with this calculation is simply a word exercise masking the definition of Nielsen's rating while doing the same!);

calculating the spot's demo delivery by multiplying the network demo delivery by the universe conformance factor and storing the demo delivery number (rejected by the same analysis as above);

repeating these steps in total for each additional local spot (as admitted in ¶ [11], 11th through 13th lines); **and**

aggregating the local spots and their corresponding household delivery, demo delivery data to obtain national equivalent units (as admitted in ¶ [11], 14th through 16th lines)

Except for receiving and/or converting the affidavit/ NTI in electronic form, applicant's admitted prior art is not explicit on using an **electronic database** to store network, zone household and demo universe calculation results and retrieve and further operate on such results electronically.

However, Szczypka discloses utilizing Nielsen's ratings and data **electronically** (collecting/ processing **databases**) in calculating the exposure of various segments of the population to various advertising programs (in particular smoking related advertisements). (See electronic measurement/ recording of data Section in pages 11,12 where People Meters collect/ record information and

process the same to provide estimates of household viewing- page 12, 1st paragraph-; electronic operations on data as in Page 13, 2nd paragraph (running search strings for various data/words requires a computerized operation based on the database collected by Nielsen's People Meter).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time of invention, to modify applicant's admitted prior art with Szczypka's teaching in order to automate data gathering and processing and provide more accurate and speedy calculation of data across various market segments.

7.2. Regarding claim 3, applicant's admitted prior art discloses a method for aggregating local commercial spot inventory into national equivalent units for a network and providing accurate audience delivery measurements using published national viewing data comprising the steps of:

processing affidavits in an electronic format for every local spot aired, the affidavits comprising detailed information on the airing of the local spots(¶ [9], the use of affidavits in this venue, as admitted by applicant, is notoriously well known in the art);

determining an impression delivery for the local spots aired based on viewing data in increments of less than one hour from a national audience measurement and matching the impression delivery data with the

information from the processed affidavits as a record in an electronic database (§ [8], Nielsen's CMIT database contains data on a day by day, quarter hour basis, as also admitted by applicant. Determining impression delivery for a particular program and demographic group is notoriously well known through Nielsen's Ratings and Share of audience calculations);

assigning audience values for the local spots based on the impression delivery (§ [11]);

aggregating values calculated using the local spot affidavit information, impression delivery and audience values to generate a national equivalent unit (§ [11]); for the national equivalent unit determining the number of times the unit aired and an impression delivery for the unit (§ [11]);

comparing an estimated delivery derived from data with the actual delivery to determine the value of the national equivalent unit (§ [8]);

The following step is an iteration of the above steps as also admitted in § [11]:

for additional national equivalent units, repeating the steps of determining an impression delivery of the local spots, of assigning audience values for the local spots, and of determining the number of national equivalent units aired and the impression delivery for the national equivalent units; and

calculating from the national equivalent units the amount to charge an advertiser for an advertising schedule on the network (customer is charged for the airing of the spot as in ¶ [11]. Also, Nielsen, as evidenced by MediaMath's Page 2, CPP and CPM, associates a cost with each rating point which is charged accordingly).

Except for receiving and/or converting the affidavit/ NTI in electronic form, applicant's admitted prior art is not explicit on using an **electronic database** to store network, zone household and demo universe calculation results and retrieve and further operate on such results electronically.

However, Szczypka discloses utilizing Nielsen's ratings and data **electronically** (collecting/ processing **databases**) in calculating the exposure of various segments of the population to various advertising programs (in particular smoking related advertisements). (See electronic measurement/ recording of data Section in pages 11,12 where People Meters collect/ record information and process the same to provide estimates of household viewing- page 12, 1st paragraph-; electronic operations on data as in Page 13, 2nd paragraph (running search strings for various data/words requires a computerized operation based on the database collected by Nielsen's People Meter).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time of invention, to modify applicant's admitted prior art with Szczypka's teaching in order to automate data gathering and processing and provide more accurate and speedy calculation of data across various market segments.

7.2.1. Regarding claim 4, applicant's prior art disclosure admits **wherein the affidavits comprise the exact date and time the local spot aired, the network on which the local spot aired, and the program during which the local spot aired** (¶ [9]).

7.2.2. Regarding claim 5, applicant's prior art disclosure admits **wherein the affidavits are received in electronic format** (admission is offered in a sentence in ¶ [25]).

7.2.3. Regarding claim 6, **wherein the electronic formats of the affidavits are converted into a readable format**, is merely an automation of a known process which would speed up an already expected result.

7.2.4. Regarding claim 7, applicant's prior art disclosure admits **wherein the affidavits are received in paper format and are scanned or otherwise converted into readable electronic format** (§[9], as admitted by applicant, in a sentence in §[25], affidavits are available in electronic forms. Converting paper copies through technologies such as OCR is notoriously well known in the art. This is merely an automation of a known process which would speed up an already expected result).

7.2.5. Claim 9 is rejected by the same analysis as offered for claims 5 and 7.

7.2.6. Claims 10 and 11 are rejected based on the same analysis as claim 3.

8. Claim 2 is rejected under 35 U.S.C. 103 (a) as being unpatentable over applicant's own disclosures (background of the invention), in view of T.J. Whymark, USPN 7,039,931 (hereinafter "Whymark").

8.1. Regarding claim 2, applicant's admitted prior art discloses: **A method of**

aggregating local spots on a network into national equivalent units (§§ [9]-[11]) comprising the steps of:

obtaining, in electronic format, details on a database comprising data correlated to the airing of the local spots (§§ [9]-[11], and [25] admits availability of such correlations in form of affidavits in electronic forms);

obtaining national viewing data for the network in increments of less than one hour corresponding to each time the local spot aired and uploading said data into said database (Nielsen's CMIT provides such data in ¼ of an hour, as admitted in § [28]);

determining household impression (Nielsen Ratings) and demo impression (what applicant calls a "demo impression", is referred to as Target Points or Target Rating Points -TRP-which specify a targeted population such as particular demographics, age group, etc and the viewership percentages of such population. This distinction/ definition is evidenced by Szczypka, page 8, Ratings/ GRPs/ TRPs Section, an example of which is shown in Table 1, pages 14-15) for the local spots based on the national viewing data (§§ [9]- [11]);

assigning audience values for the local spots based on the impression delivery for the spots (as in § [11]);

obtaining a total number of national equivalent spots and an impression delivery for those spots (as disclosed in § [11]), the impression delivery comprising one or more of (the following data is provided as part of

Nielsen's ratings services, as admitted by applicant in ¶ [11], for example Nielsen's NTI. Also, Cable Scope's Media Math provides definition/ evidence of Nielsen's equations for calculating various ratings, average audience, etc., based on 2000 Nielsen Media Research (hereinafter "MeidaMath")); **a total household delivery** (number of impressions/ viewer based on Nielsen ratings and household universe; **an average household delivery per spot** (average impression/ delivery based on households, viewers in households, and household ratings; for example see Media Math's AA calculations on page 1) ; **an average household rating** (household rating based on the number of viewers in a household), **a total demo delivery**; **an average demo delivery per spot**; and **an average demo rating** (same as described for households but for TRPs instead of GRPs);

calculating a total number of national equivalent units by adding household zone universe data for each of a plurality of local spots stored in the database and dividing that number by the total number of subscribers claimed for that network (this is the aggregation process as evidenced by applicant's admission in ¶ [11]);

calculating an average household delivery per spot by dividing the total household delivery by the total number of network equivalent spots (As in MediaMath's equation for AA on page 1) ;

calculating an average household rating by dividing the average household delivery per spot by the total number of claimed subscribers

and then multiplying that number by 100 (again applicant is reproducing Nielsen's process. It is customary in advertising to multiply the GRPs by 100. This convention is evidenced by Szczypka, page 8, Ratings/ GRPs/ TRPs Section);

calculating a total demo delivery by adding all of the demo delivery numbers for the local spots from the database;

calculating an average demo delivery by dividing the total demo delivery by the total number of network equivalent spots;

calculating an average demo rating by determining the average demo delivery expressed as a percentage of the total number of claimed subscribers, multiplied by a demo universe factor; (the above three steps relate to TRPs. Same analysis applies as presented for the GRPs before) **and**

repeating the steps for additional spots and aggregating the audience values to create a national equivalent unit on the network (as admitted in ¶ [11], 14th through 16th lines).

Applicant's admitted prior art is silent on:

sorting the database by one or more of advertiser, length of spot; network; daypart, and ISCI Code

removing all spots that ran outside a contracted daypart;

calculating a subtotal of impression delivery by one or more of **ISCI code, daypart, length, and network**;

However, Whymark discloses

sorting the database by one or more of advertiser, length of spot; network; daypart, and ISCI Code (Advertisements are assigned unique codes such as ISC, Col. 9, line 49 through Col. 10, line 4; Advertisements are detected analyzed based on source, broadcast time- daypart, duration, etc. e.g. Col. 13, lines 26- 39. The system then adjusts for duplications or inaccurate data –as in Col. 14, lines 59-67-. To do this, data, e.g. flight records may be sorted, as in Col. 20, lines 17-20);

removing all spots that ran outside a contracted daypart (deleting outlying data as in Col. 14, lines 64-67);

calculating a subtotal of impression delivery by one or more of **ISCI code, daypart, length, and network** (as described above, the impressions are now calculated after elimination of redundant or inaccurate data).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time of invention, to modify the applicant's admitted prior art with Whymark's invention in order to ensure accuracy and reliability of the data collected and calculations performed.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contacts

Any inquiry concerning this communication or earlier communications from the examiner should be directed to 3 whose telephone number is (571)270-1843. The examiner can normally be reached on 8:00 AM- 5:00 PM M-F, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Miller can be reached on (571) 272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John W. Miller/
Supervisory Patent Examiner, Art Unit 2421

/James R. Marandi/
Examiner, Art Unit 2421